ATTACHMENT 21

EXHIBIT 2

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

1   UNITED STATES DISTRICT COURT

2   NORTHERN DISTRICT OF CALIFORNIA

3   SAN JOSE DIVISION

4

     - - - - - - - - - - - - - - - - - - - x   Case No.

5   :   5:14-cv-05344-BLF (PSG)

                                           :

6   CISCO SYSTEMS, INC.,   :

                                           :

7   Plaintiff,   :

                                           :

8   vs.   :

                                           :

9   ARISTA NETWORKS, INC.,   :

                                           :

10   Defendant.   :

                                           :

11   - - - - - - - - - - - - - - - - - - - x

12

13   VIDEOTAPED DEPOSITION OF GREG SATZ

14   March 23, 2016

15   HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

16   VOLUME 1

17

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20

21   Reported by

22   Brooke R. Bohr

23   CSR No. 753

24   Job No 2272380

25   Pages 1 - 168

                                                    Page 1

1   VIDEOTAPED DEPOSITION OF GREG SATZ,
2 taken at the instance of the Defendant, at the
3 offices of TUCKER & ASSOCIATES, 605 W. Fort
4 Street, in the City of Boise, State of Idaho,
5 commencing at 10:10 a.m., on March 23, 2016,
6 before Brooke R. Bohr, CSR, RPR, a Notary Public
7 in and for the State of Idaho, pursuant to notice,
8 and in accordance with the applicable Rules of
9 Civil Procedure.
10
11   A P P E A R A N C E S
12 FOR PLAINTIFF
       John M. Neukom, Esq.
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21
22
23
24
25
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1   WITNESS
2 GREG SATZ   Page:
3   Examination by Mr. Ferrall   5
4   Examination by Mr. Neukom   151
5   Further Examination by Mr. Ferrall 158
6
         * * * * *
7
8   E X H I B I T S
9
              Page:
10
11 Exhibit 400   Greg Satz LinkedIn   13
12 Exhibit 401   "TOPS-20 DECnet-20 Programmers   22
         Guide and Operations Manual"
13
    Exhibit 402   One-page Document with   36
14   Bates No. KL-883
15 Exhibit 403   Document Beginning Bates No.   69
         ARISTANDCA00022465
16
    Exhibit 404   Document Beginning Bates No.   84
17   CSI-CLI-00359132
18 Exhibit 405   One-page Document Bates No.   106
         CSI-CLI-00746924
19
    Exhibit 406   Document Bates No. CSI-CLI-01828732 112
20   Through Bates No. CSI-CLI-01828783
21 Exhibit 407   Document Beginning Bates No.   141
         CSI-CLI-01295215
22
23 Exhibit 408   Document Beginning Bates No.   143
         CSI-CLI-01295181
24
25   * * * * *
                                    Page 3

1   BOISE, IDAHO
2   March 23, 2016, 10:10 a.m.
3
4   THE VIDEOGRAPHER: We are now on the record.
5   Please note that the microphones are
6 sensitive and may pick up whispering and private
7 conversations. Please turn off all cell phones or
8 place them away from the microphones as they can
9 interfere with the deposition audio. Recording
10 will continue until all parties agree to go off
11 record.
12   My name is David Cromwell, representing
13 Veritext. The date today is March 23, 2016, and
14 the time is approximately 10:10 a.m. This
15 deposition is being held at Tucker & Associates
16 located at 605 West Fort Street, Boise, Idaho
17 83702, and is being taken by counsel for the
18 defendant.
19   The caption of this case is Cisco
20 Systems, Inc. v. Arista Networks, Inc. This case
21 is filed in the United States District Court,
22 Northern District of California, San Jose
23 Division, Case No. 5:14-CV-05344-BLF PSG. The
24 name of the witness is Greg Satz.
25   At this time, the attorneys present in
                                    Page 4

1 the room will identify themselves and the parties
2 they represent.
3   MR. FERRALL: Brian Ferrall of Keker &
4 Van Nest on behalf of Arista Networks.
5   MR. NEUKOM: John Neukom for the plaintiff.
6   THE COURT: Our court reporter, Brooke Bohr,
7 representing Veritext, will swear in the witness,
8 and we can proceed.
9
10   GREG SATZ,
11 produced as a witness at the instance of the
12 Defendant, having been first duly sworn, was
13 examined and testified as follows:
14
15   EXAMINATION
16 BY MR. FERRALL:
17   Q. Good morning, Mr. Satz. Can you please
18 state your full name.
19   A. Greg Leonard Satz.
20   Q. Mr. Satz, you are not represented by
21 counsel today; is that right?
22   A. Correct.
23   Q. Have you ever been deposed before?
24   A. I have.
25   Q. All right. So you know the basic
                                    Page 5

2 (Pages 2 - 5)

1   you were there?
2   A.   Yes, that's fair to say.
3   Q.   Did you have a role in determining how
4   the command line interface would evolve?
5   MR. NEUKOM: Objection; vague.
6   Q.   BY MR. FERRALL: Yeah. Strike that.
7   Let me rephrase that.
8   A.   I was going to ask you for a
9   clarification.
10   Q.   Did you have input into the command
11 line interface?
12   A.   Yeah. I was going to draw a
13 distinction for the benefit of that. So the
14 command line interface is a generic term, isn't
15 descriptive enough, because there's the content of
16 it and there's the mechanics of it. So for the
17 purpose of answering, I had some responsibility
18 for the mechanics of it; the content of it was
19 distributed around the engineering organization in
20 an effort to deliver services and products.
21   Q.   Okay. Can you help me understand
22 what -- explain a little more what the difference
23 is between the mechanics and the content?
24   A.   So everyone knows these days the term
25 API, application programming interface. That's

1   performance, a traffic prioritization. Somebody
2   else would write that and then have the code that
3   did that trick, whatever that trick was, and we
4   didn't have anything to do with that aspect of it
5   because that was somebody else's responsibility,
6   somebody else's coding, another manager, another
7   organization within engineering.
8   Q.   So the commands themselves, would you
9   consider that part of this API or is that distinct
10 from it?
11   MR. NEUKOM: Objection; vague and compound.
12   Q.   BY MR. FERRALL: Meaning the words of
13 the command itself, is that --
14   A.   Was content.
15   Q.   That's content, not the API part?
16   A.   Right.
17   Q.   All right.
18   A.   The code itself that did the parsing
19 was ultimately what Terry Slattery and Rob Widmer
20 and other folks redesigned.
21   Q.   Let's go back a little bit to your
22 pre-Cisco employment history. Can you summarize
23 that for me, please.
24   A.   I mean, how far back do we want to go?
25   Q.   Well, just -- just in terms of the

1   probably the closest generic term that would
2   describe the mechanics. We would provide a way
3   other people could add a command, provide hooks
4   back to code they would write. And so the -- what
5   we call the parser itself would then take textual
6   tokens, process them, and ultimately get some code
7   executed. And we didn't have to know what code
8   that was, that was for some other programmer to
9   use the API, but it was my group's organizational
10 responsibility or -- basically, Cisco had
11 thousands of things swirling around and thousands
12 of things constantly hitting it every few weeks.
13 So you would just start picking things up and
14 start doing them. And so I think I just picked
15 the parser up and started doing it.
16   Q.   So would the parser be part of the
17 mechanics, what you refer to as the "mechanics"?
18   A.   Yes, or the API. Basically, how you
19 write a command.
20   Q.   I see. All right. And then when you
21 refer to the content of the command line
22 interface, can you give me some examples of that?
23   A.   Sure. The show process command or if
24 you were using some sort of tunnel or security
25 filter that you would block or permit or enhance

1   places you've worked. If you could list where you
2   worked after -- from college on.
3   A.   So, technically, my first job out of
4   college after my undergraduate degree was New York
5   University Graduate School of Business; I then
6   transferred to Menlo Park to SRI International;
7   and from there to Stanford University; and from
8   there to Cisco.
9   Q.   Okay.
10   (Discussion off the record.)
11   (Exhibit 400 marked.)
12   Q.   BY MR. FERRALL: So, Mr. Satz, as
13 Mr. Neukom predicted, I presented to you a
14 printout of what I believe is your LinkedIn
15 profile; is that right?
16   A.   Yes, it sure looks like me.
17   Q.   All right. Okay. And is -- do you
18 keep this relatively up to date?
19   A.   Not very consistently, no.
20   Q.   Okay. All right. I just -- I wanted
21 to mark it for the sake of seeing if this -- it
22 helps put dates on your various pre-Cisco
23 employment.
24   A.   Yeah, this is -- this is a good
25 rendition.

4 (Pages 10 - 13)

1   "Stanford Ethertip/Gateway User and Configuration
2   Guide."
3   A.   Yeah.
4   Q.   Had you ever seen this before?
5   A.   I'm sure I have. I don't have a
6   recollection of it, and I don't remember this date
7   at all. This is a pretty late date.
8   Q.   Do you know Glenn Truitt?
9   A.   I do.
10   Q.   What did he work on at Stanford?
11   A.   I no longer remember. I do know that
12   he had his hands in this software, but a lot of
13   people did. Jeffrey Mobile, Benji Levy. This
14   was -- this code was a lot of research work. And
15   so if one of the graduate students felt there was
16   an application they wanted to experiment with,
17   this really was the beginning of what then became
18   the multi-protocol router and Cisco's router.
19   So -- oh, yeah, there's some really old -- really
20   old stuff here.
21   Q.   Did you become familiar with some of
22   the commands from this device?
23   A.   Yes.
24   Q.   Yeah? How did you become familiar with
25   it?

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1   A.   Well, we were users of these devices
2   when I -- the state of the art back then, before
3   there were all of these computers and laptops, is
4   you used a basic terminal with RS232 into some
5   device that converted the commands into network
6   protocols and used that across the network to talk
7   to mainframes. That was state of the art.
8   So on my desk at Stanford and at SRI
9   was these computers that were just terminals.
10   They -- all they did was take a capture of
11   keypress and generate a character. And that
12   character was shipped across the network
13   somewhere. And the computer would get that
14   character, do something with it, and ship you back
15   the output.
16   So that's what a TIP was, terminal
17   interface processor. It allowed you to take an
18   RS232 terminal and sit on the network without
19   talking to the computer directly. And I think
20   Kirk was responsible for gluing the TIP and the
21   Gateway software together, because they were two
22   different software bases.
23   Q.   So if I could ask you to turn to Page 6
24   of that Exhibit 36.
25   A.   Okay.

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1   Q.   This was a -- begins a section called
2   "privileged commands." Do you see that?
3   A.   Um-hum. I do.
4   Q.   And were you aware of a privileged mode
5   in this -- in the TIP Gateway?
6   A.   Sure.
7   Q.   Explain what was the purpose of the
8   privilege mode there.
9   A.   It mimicked the TOPS-20 style of
10   parsing, and it -- there were commands that people
11   would use to just have the device do what it does
12   day-to-day, and there were commands that
13   administrators or users who needed to maintain the
14   device in the network would use. And so privilege
15   commands were the latter set, and TOPS-20 had a
16   very similar model.
17   Q.   And this document says in the -- I
18   guess in the second sentence, it's -- or I'll read
19   the first sentence also: There's a second set of
20   commands available to the Ethertip user. The two
21   command levels are disjoint. That is, the
22   privileged mode is not a superset of the normal
23   mode.
24   Do you see that?
25   A.   Um-hum.

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1   Q.   So what did you understand to be the
2   purpose of the normal mode, then, as opposed to
3   the privileged mode?
4   A.   Day-to-day users don't need privileged
5   mode. They go in, they make their connections,
6   they do what they do to get their work done, and
7   that's the extent of their relationship to the
8   software.
9   The people who administer the device
10   and who might need to add a new feature or upgrade
11   the software would have to use privileged mode.
12   And it is a complete separate set of functions.
13   And in particular for the programmers,
14   they -- you know, they made a mistake, and they've
15   got to go figure out why something is not working,
16   especially for research work.
17   Q.   I want to ask about some of the
18   commands that follow here on Page 6.
19   "Access.lists," I see under 3.1.
20   A.   Um-hum.
21   Q.   Was that a command you were familiar
22   with?
23   A.   That's a very common and important
24   command.
25   Q.   What is an access.list command?

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8 (Pages 26 - 29)

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1   A. It gave the device the ability to
2 decide what data flows it would allow through or
3 prevent, and/or connections that people could make
4 to the box. So if, for example, your department
5 wasn't allowed to use this particular box, we
6 could create an access.list so you couldn't use
7 it.
8   Q. Was -- to your knowledge, was
9 access.list used in any other operating systems or
10 softwares, software?
11   MR. NEUKOM: Objection; foundation.
12   THE WITNESS: I can't say I've ever seen
13 access.list before this application.
14   Q. BY MR. FERRALL: The next command here
15 is -- it says "arp.table." What is that, do you
16 know?
17   A. Yes, address resolution protocol. So
18 that was the mechanism that computers used to
19 discover each other's -- I'm going to get really
20 boring here -- 48-bit ethernet address and match
21 it to their 32-bit IP address.
22   Q. And was the address resolution protocol
23 something that was known outside of the Stanford
24 network context?
25   A. Oh, yes, it was a standard.

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1   MR. NEUKOM: Objection; lack of foundation,
2 calls for speculation.
3   Q. BY MR. FERRALL: Now, don't worry, I'm
4 not going to go through every command in here.
5   A. You'll need coffee.
6   MR. NEUKOM: And I think, actually, Brian, I
7 didn't -- you said a little while back that the
8 next -- just to make sure the transcript is clean,
9 after discussing access.list, you said the next
10 one listed is arp.table.
11   MR. FERRALL: That's -- you're right.
12 That's not correct. That was -- I skipped one.
13   MR. NEUKOM: Okay.
14   MR. FERRALL: Thank you.
15   Q. BY MR. FERRALL: Were you familiar with
16 show commands used in the Stanford TIP?
17   A. Yeah. I didn't do a lot of work with
18 the TIP, so I can't say I have a great familiarity
19 with this version of the software.
20   Q. Okay.
21   A. By the time I spent time with the
22 software, it had been rewritten and the parser,
23 which is the interesting part for this discussion,
24 had been changed. So a lot of these commands are
25 almost like looking at them new again. There's

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1 just some here I don't -- I have no recollection
2 of.
3   Q. Had you ever heard of or used show
4 commands in any context before you went to Cisco?
5   A. Every computer has show commands. I
6 mean every operating system had used the word
7 "show" as a way to convey internal information
8 outward.
9   Q. What about banner, which, by the way,
10 I see at the bottom of Page 8 of Exhibit 36. But
11 my question is more general, which is were you
12 aware of a banner command before you went to
13 Cisco?
14   A. I don't remember. I had used, by then,
15 anywhere from 15 to 20 different operating
16 systems. And so I -- banner doesn't stand out as
17 anything.
18   Q. If I could ask you to look at Page 13
19 of this exhibit, Exhibit 36. Do you see on that
20 page there are a number of commands that have in
21 brackets the word "no" before the command?
22   A. Um-hum. I do.
23   Q. Do you know what that means?
24   A. It is an optional keyword.
25   Q. And what does it do? What function

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1 does it serve?
2   A. Excuse me. Optional keywords just
3 allow you to include them or not include them. So
4 you -- I don't know if you're asking me what it
5 means in relationship to each command or the
6 generic optional keyword.
7   Q. Well --
8   A. There's layers.
9   Q. Okay. Fair enough.
10   Is there an overall purpose of -- if
11 you wanted -- if you decided to include "no" as
12 an option before these commands, is there a
13 generic -- general way of describing what that
14 would do?
15   MR. NEUKOM: Objection; vague and compound.
16   THE WITNESS: It is a negation in this
17 particular usage. This, again, gets back to the
18 mechanics or the API versus the content. So the
19 confusion is I'm going to -- as a somewhat of a
20 programmer or someone who has worked at the
21 building of this, I'm more coming from a here is
22 the mechanical word. An optional keyword is an
23 optional keyword. What it actually means is going
24 to be interpreted by the code that is written. So
25 in this particular case, the "no" in front would

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9 (Pages 30 - 33)

1   did, while it had the same capability, was more
2   robust, had a higher performance capability.
3   Because as the networks evolved, you needed to be
4   able to push data faster. And Stanford's code was
5   basic. It was there to just move the data, not
6   move it with the requirements that the next few
7   years dictated. And a lot of what Kirk did was to
8   create high-speed interfaces, and that's what
9   Wellfleet showed up to compete on was could they
10 go faster than Cisco. And it created an arms
11 race, as it were. Who could go faster.
12   Q.   Now, you mentioned IETF, and I think
13 earlier today you mentioned RFCs. Can you tell me
14 what an RFC is?
15   A.   Request for comments.
16   Q.   And what's the purpose of a request for
17 comment?
18   A.   To create a protocol definition or
19 solution and to publish it as a request for
20 comments in an effort to move it forward as a
21 proposed solution and a trial solution and then a
22 committed solution, as the solution progressed
23 through a community and an implementation and a
24 trial and then some feedback. So it was an
25 engineering group. Their goal was to deliver

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1   evolved. And I can't speak to that as much.
2   Q.   BY MR. FERRALL: Okay. But --
3   A.   But managing that was important.
4   Q.   And just by way of example, you
5   mentioned IGRP.
6   A.   Um-hum.
7   Q.   And that was a technology that Cisco
8   chose to keep proprietary, right?
9   A.   Yes.
10   Q.   All right. And there were other
11 technologies that Cisco was involved in
12 developing, like BGP, for example?
13   A.   Right.
14   Q.   And that Cisco chose to publish RFCs
15 about, right?
16   A.   Well, Cisco didn't publish the RFCs.
17 Cisco -- a person like Kirk might be a part of the
18 team that developed BGP and then Kirk would have
19 his name on it with a Cisco title, but it wasn't
20 Cisco, it was actually Kirk. And the RFC itself
21 is an open document. So just to make that
22 distinction.
23   If there was a protocol that showed up
24 from the IETF, Cisco was typically involved.
25   Q.   And what was your involvement in

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1   something working. Companies would try to use it
2   as -- to competitive advantages. But the
3   standards body existed to create a level playing
4   field.
5   Q.   And did you have a view at the time as
6   to the importance of publishing technology through
7   RFCs? Well, let me strike that. That was a
8   garbled question.
9   In your experience at Cisco in the
10 early years, was the sharing of technology through
11 RFCs important to Cisco?
12   MR. NEUKOM: Objection; vague, compound, and
13 lack of foundation.
14   THE WITNESS: Back then it wasn't clear how
15 successful Cisco would be and/or whether we might
16 maintain or keep a competitive advantage. So
17 there really was a series of tradeoffs in the
18 decision to create an RFC and make it a community
19 effort or to create a proprietary solution and
20 then decide whether to make it an RFC later. Most
21 of the times, it was to make the customers happy.
22 If the customers wanted something documented, we
23 would typically figure out how to comply with
24 that. Later, as the company got larger and I
25 wasn't involved, managing the IETF and RFC process

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1   IETF -- in IETF? Did you --
2   A.   I would go to the meetings and attend
3   various functions and decide, based on the
4   software responsibility I had, to participate in
5   different standards or not.
6   MR. FERRALL: Let's mark this as the next
7   exhibit.
8   (Exhibit 403 marked.)
9   THE WITNESS: More ancient history.
10   Q.   BY MR. FERRALL: Yeah. So I've marked
11 as Exhibit 403 what I think is an IETF RFC for a
12 simple network management protocol, SNMP. Do you
13 recognize this, Mr. Satz?
14   A.   I do.
15   Q.   Did you have involvement in the SNMP
16 RFC?
17   A.   I did.
18   Q.   What was that involvement?
19   A.   I was just part of the working group
20 that went through the process of deciding what
21 would be done as a solution to network management.
22 And SNMP was the output.
23   Q.   Do you remember when this SNMP working
24 group began to discuss this solution?
25   A.   Probably a couple years before this

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18 (Pages 66 - 69)

1 document, at least a year.
2   Q.   And do you remember any particular
3 parts that you contributed, specifically?
4   A.   I think I did an RFC for a MIB for
5 CLNS, another protocol stack that since
6 disappeared.
7   Q.   Was there a -- have you ever heard of
8 the term "SNMP server"?
9   A.   Oh, the command line, parsed for the --
10 yeah -- configuration? Um-hum. Yes, I created
11 that.
12   Q.   What's -- is there such a thing as an
13 SNMP server, or what does that term mean?
14   A.   Wow.
15   MR. NEUKOM: Objection; lack of foundation,
16 calls for opinion testimony.
17   THE WITNESS: I think all of that code is
18 gone now. The SNMP server was the way to tell the
19 router software that it was to be an SNMP -- it
20 was to start the SNMP protocol. So it would then
21 begin to listen to and process SNMP packets. And
22 it was probably one of the first commands
23 implemented as part of this RFC to implement it
24 and create an SNMP protocol within the Cisco
25 software.

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1   MR. NEUKOM: And, Brian, I rescind my prior
2 objection. Pardon me.
3   THE WITNESS: Hey, just because I write it,
4 doesn't mean I'm the expert.
5   MR. FERRALL: You can't -- you can't
6 rescind. No rescinding objections, Mr. Neukom.
7   Q.   BY MR. FERRALL: What's -- what's the
8 notion of community in the context of SNMP?
9   A.   After a while, you start running out of
10 words, so you pick one that tries to create a
11 sense of purpose. And so "community" was an
12 attempt to describe a collection of users who
13 would have a specific purpose with respect to
14 using the protocol. It was nothing more than an
15 authorization or an access. A password, as it
16 were.
17   Q.   So if you look at Page 7 of this
18 Exhibit 403.
19   MR. NEUKOM: Sorry. Which page are we on?
20   MR. FERRALL: Page 7.
21   Q.   BY MR. FERRALL: If you see under
22 Section 3.2.5, Definition of Administrative
23 Relationships, and then the second paragraph there
24 says, quote, appearing of an SNMP agent with some
25 arbitrary set of SNMP application entities is

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1 called an SNMP community.
2   Do you see that?
3   A.   Yes.
4   Q.   Is that consistent with your definition
5 of SNMP community that you just described?
6   A.   Yeah. It's more mind-numbing when you
7 see it in words.
8   Q.   I couldn't agree more.
9   A.   Yeah. It turns out a lot of these
10 things are written to be really obtuse. They are
11 not intended to be obtuse, but they have a
12 structure to them that when you turn it into
13 English or a simple picture it takes a lot of this
14 out. They tried to make a more generic
15 mathematical underpinning to a mapping that added
16 a level of complexity that just ultimately wasn't
17 necessary. But they were trying to be very
18 flexible.
19   Q.   Okay. But this notion of community as
20 described in the Exhibit 403 is the same as the
21 community that you understood when you --
22   A.   I made the implementation simpler
23 because of adding a whole layer. The idea, if I
24 can remember any of this craziness, is that you
25 would have a table of -- no different than a

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1 database in today's language -- and you could be
2 able pull out individual things. And so they
3 wanted to be able to map authorizations to
4 individual entries in the database. And the
5 implementation I did was to make it an all or
6 nothing. Because if somebody wanted that level of
7 specificity they'd ask for it and then we'd go
8 back and put all that crazy complexity into the
9 code. But just because the standard made it that
10 flexible we weren't going to go that far. It was
11 an engineering choice and cost benefit.
12   Yeah, I don't know if you've ever heard
13 of Vint Cerf?
14   Q.   Sure.
15   A.   So one of the more inspiring aspects of
16 this work, we had three different protocols
17 compete to be the network management RFC, and so
18 there was just three groups of engineers that were
19 not happy, or wanted their choice. And I watched
20 Vint come in and broker a -- mediate, and I had
21 never seen that kind of mediation happen before,
22 let alone difficult engineers. And so it was a
23 very inspiring time to watch somebody. And then
24 so, you know, Vint was the author of a lot of the
25 TCP/IP protocols. So people respected him and

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19 (Pages 70 - 73)

1 were willing to listen to his know. So I --
2 that's a really good story about Vint.
3   Q.   Well, on this issue of SNMP community,
4 do you remember how this discussion came about in
5 the context of the IETF working group?
6   A.   What happened with this protocol is
7 these four people went off and created this,
8 brought it back to the IETF and said we should use
9 this. And it was actually done at the behest of
10 the mediation result by Vint to say, okay, we're
11 going to take all of these ideas that you have for
12 all of your different proposals and we're going to
13 bring it down to this. So they went and did this.
14 So it was really done in a small group of these
15 four, maybe a half-dozen people, published this
16 document and then they brought it back to the IETF
17 to ratify or get the feedback loop that the IETF
18 is.
19   So the communities were intended to be
20 a very flexible generic solution to an access
21 mechanism as they wrote it.
22   Q.   Okay. And so you -- you implemented a
23 simpler version --
24   A.   A subset.
25   Q.   -- of the community that these four

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1 that one little line of parsing, no. I mean
2 overall the task was probably two to three months
3 to do the full SNMP stack.
4   Q.   Okay. And how long did it take you to
5 come up with the names for the commands for the --
6 for SNMP functionality?
7   A.   15 seconds, conceptually, five seconds.
8 I mean, this is the name, type it in, move on.
9   Q.   And to be clear, though, the original
10 parser on the first generation of Cisco products,
11 that was already written by the time you joined;
12 is that right?
13   A.   Well, the EtherTIP-style parser, to use
14 this document as a basis, wasn't a parser in a
15 sense that it had a common code base. It was just
16 individual programming statements to consume
17 tokens. So the distinction being there's a bunch
18 of subtertians (sp) whose job it is to do
19 something versus individual lines of code
20 scattered thousands of places that consumed tokens
21 that parse. So that was the EtherTIP style and
22 then Terry Slattery and Widmer put it together in
23 a common set of code and created data structures
24 and a programming interface and documentation on
25 how to use it.

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1 authors had proposed.
2   A.   Yeah. Exactly. And that was in this
3 '89 timeframe. Since then the code has been --
4 that I wrote has been thrown out and they bought a
5 third party, I think from Mr. Case. I think Cisco
6 went and bought his software and just got a whole
7 bunch of new features instead of writing it
8 themselves and moved on. And I have no idea what
9 those parse commands look like. I don't even
10 think I've -- I still run a Cisco router, and I
11 don't think I've enabled SNMP.
12   Q.   So in implementing, for example, the
13 SNMP server community function, were you
14 responsible either directly or indirectly for
15 implementing the functional code?
16   A.   I was.
17   Q.   All right. And was that directly?
18 Were you actually writing that --
19   A.   I wrote the code.
20   Q.   You wrote the code?
21   A.   The first version, yes.
22   Q.   And for that function, do you have any
23 sense of how long it took you to write that code?
24   A.   No. Because it was all part of a much
25 larger set of functionality, and so to pull out

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1   So by the time -- I don't remember
2 where SNMP falls within that. And I can't
3 remember when I typed it in, if I was typing it
4 into the old style or Slattery had already done
5 his work. Do you have a date for Slattery's --
6   Q.   Yeah. And that's what I was just
7 looking for. I don't --
8   A.   Yeah, because I think I -- I think
9 these commands were before Slattery's work,
10 because I was a manager by then when I got
11 Slattery to redo the parser.
12   Q.   Right. And I will want to get to that.
13 I've got to dig documents out. But at 1990, 1991,
14 does that sound about right --
15   A.   Yeah.
16   Q.   -- for Terry Slattery's work?
17   A.   Yeah. This was the late '80s, yeah.
18   Q.   Okay. And while we're there, am I
19 right that you were the person who hired Terry,
20 right?
21   A.   I did.
22   Q.   Okay. All right. We'll come back to
23 that in a little bit.
24   You mentioned an RFC for a MIB?
25   A.   Um-hum.

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20 (Pages 74 - 77)

1 service. And so I called them a server, like you
2 would on an operating system running as a separate
3 process. So it was just a distinction I happened
4 to use just from where I had come from.
5   Q. In the Unix context, what -- how was
6 that manifest itself, or what's an example of that
7 in the Unix context?
8   A. Well, Unix is what is on these phones.
9 It is Linux. It is just the next generation of
10 it. And so it is any arbitrary process running in
11 the background that people might call a demon that
12 provides a service. I mean you -- your -- you go
13 to the web, you're talking to a web server. It
14 just happens to be a dash in the configuration
15 language.
16   Q. Right.
17   A. Maybe that helps with the modern
18 analysis in comparison, as opposed to a routing
19 protocol or a switching engine or a link layer,
20 like an ARP. I mean, there's all these different
21 components.
22   Q. Okay. I think we can put that aside.
23   So are you familiar with the terminal
24 monitor command?
25   A. Yes.

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1   Q. And do you know the origins of that?
2   A. I think I wrote it.
3   Q. Okay. What function does the terminal
4 monitor command invoke?
5   A. I now use it without thinking. So the
6 ability to figure out what's happening in a piece
7 of software requires some diagnostics. And so we
8 created a lot of debug commands that would print
9 out the debugging. The debugging typically only
10 went to the console which, in the good old big
11 iron hardware, wasn't a bitmap display, but just
12 an RS-232 port, and usually it was hooked to a
13 good old-fashioned terminal in today's
14 perspective. So the stream of debug diagnostic
15 messages would come out this console port and if
16 you're sitting at home, trying to connect in and
17 do some debugging, it couldn't get there from
18 here. The data was going over to your office in
19 some terminal and the only way to look at it was
20 to attach a stream back to where you were, and
21 that was what monitor did. It said send me
22 anything that came out on the console to my
23 virtual terminal connection.
24   Now all laptops have bitmap displays
25 and fancy graphics and no one even says RS-232

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1 anymore.
2   Q. So am I right, then, that "monitor" in
3 the command terminal monitor refers to monitoring
4 the bug diagnostics?
5   A. It is actually monitoring anything that
6 gets printed to the console port.
7   Q. Okay.
8   A. Which the important stuff was the
9 diagnostics. It is the old world screen sharing
10 of today.
11   Q. And did you write the code to implement
12 that feature?
13   A. Yes.
14   Q. When did you do that, approximately?
15   A. Wherever it shows up in the manuals.
16   Q. Early, early years?
17   A. Yeah, because we needed that to help
18 improve our proficiency to debug so we didn't have
19 to be at the office.
20   Q. And how did you come upon the selection
21 of the command terminal monitor for that?
22   A. The same expediency I did all of them:
23 Monitor, sounds good, next.
24   Q. Okay.
25   A. Yeah. Unless Kirk didn't like my

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1 choice, I think it was just whatever that struck
2 me as a -- as what it did as I could perceive it
3 from the point of view at the time.
4   Q. Have you ever heard of the term --
5 well, strike that.
6   Have you ever heard of people in your
7 field characterizing a command as a "generic
8 command"?
9   A. Yes.
10   Q. What does that mean to you?
11   A. Like "show." It is everywhere.
12   Q. And how would you contrast that concept
13 of a generic command like show versus a non-
14 generic command?
15   A. Its applicability to many different
16 aspects or areas. So to -- I mean to use the word
17 "generic" is not really clear, but it's --
18 probably if you look at it in the hierarchy sense,
19 the top note is pretty generic. And depending on
20 how many commands under it -- so relationship to
21 the other commands around it or below it, if it is
22 the root of a very deep tree, it's going to be
23 more generic than if it's just one layer deep.
24 And its applicability therefore expands out.
25   Q. So if I understand you, then, at a high

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26 (Pages 98 - 101)

1   Q. Yeah.
2   A. I wasn't hands-on at that point.
3   Q. Okay.
4   A. There are generations of people who
5 went on to do that stuff.
6   Q. So, Mr. Yeager -- you're not
7 Mr. Yeager. I was looking at. . .
8   Mr. Satz, do you own Cisco stock
9 anymore?
10   A. No. Well, I probably have some shares
11 in a retirement account, I think. So, yeah, I
12 probably have a few, but not a lot.
13   Q. Do you own any Arista stock?
14   A. No. I have stayed out of the
15 technology buying. I had enough risk in that.
16   Q. That's a wise move for the past six
17 months, right?
18   A. Well, pick your time.
19   Q. Right. Okay.
20   Did you -- have you spoken to anyone
21 in-house at Cisco, employee at Cisco, about this
22 case?
23   A. Kirk. After Morgridge, I had dinner
24 with him, and then I had dinner with him again a
25 few weeks ago. Both times it came up; both times

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1 he said, "After your deposition we'll talk. I'm
2 not going to talk to you before." And I said,
3 "Fine with me."
4   I'm trying to remember if there was
5 anything interesting. He was pretty good -- my
6 wife was commenting on it, "Yeah, he really wanted
7 to tell you stuff, but he really kept his mouth
8 shut." Yeah, that was -- he's smart.
9   I'll have to -- let's let that sit.
10 We're getting to the end of the day. It's not
11 working as well.
12   Q. Anyone other than Mr. Lougheed?
13   A. E-mail with Terry Yeager. I think I
14 touched Tony Li on Facebook. He just said "yep"
15 in his way. I think that's about it.
16   MR. FERRALL: Okay. Well, thank you for
17 your time, Mr. Satz. I have no further questions.
18   THE WITNESS: Wow, that's an abrupt ending.
19 Thank you.
20   MR. NEUKOM: I have a few.
21   THE WITNESS: Please.
22
23   EXAMINATION
24 BY MR. NEUKOM:
25   Q. A little bit earlier today, I think you

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1 testified that you don't remember any instances,
2 any historical instances, of Cisco using the word
3 "proprietary" with respect to the CLI command set.
4 Do I have that right?
5   A. Yes.
6   Q. Okay. So I just have one question
7 which goes the other way.
8   Based on your experiences at Cisco,
9 do you remember any instance in which Cisco made
10 an announcement or made a statement that its CLI
11 command set was -- it was okay if competitors
12 wanted to use it?
13   A. Never heard that either.
14   Q. Okay. And you -- I think you smiled a
15 little bit when you said you never heard that.
16 Why?
17   A. No, it's a brilliant question. I
18 appreciated it.
19   The only thing I can say in my
20 recollection of usage is because -- I wouldn't
21 call it a universal language, but it was the
22 Cisco language, that there was a big effort to
23 script Cisco. And outside of SNMP, there was no
24 real remote control interface. So if you as a
25 network operator wanted to toggle an interface up

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1 or down or change some performance parameters,
2 there was a whole push in the '90s to connect to
3 the router, type -- robotically type commands at
4 it.
5   And so there were scripting interfaces
6 or scripting attachments that, you know, as
7 engineers we're, like, okay, we could see your
8 need to do that. Great. And we don't have a
9 better solution than that and that's the way to
10 control it in any way you want. We don't have to
11 write SNMP every time you need one new thing. So
12 it became the control language or the scripting
13 language. So I wouldn't say we said it was open,
14 but we knew and needed that customers have the
15 ability to meet their needs controlling it.
16   Q. Sure. But to the best of your
17 memory --
18   A. No.
19   Q. -- you never remember Cisco ever making
20 a statement publicly or privately --
21   A. No.
22   Q. -- that it was okay for any competitor
23 to be using this --
24   A. No. Not competitors, no.
25   Q. -- CLI command set?

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39 (Pages 150 - 153)

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

1   Exhibit 405 is a one-page document
2   marked CSI-CLI-00746924.
3   Exhibit 406 begins CSI-CLI-01828732,
4   and for this document I'll read the last number
5   because I think we're all unclear whether it is
6   one versus multiple documents. This ends with
7   Bates stamp CSI-CLI-01828783.
8   Exhibit 407 begins Bates stamp
9   CSI-CLI-01295215.
10   And Exhibit 408 begins
11   CSI-CLI-01295181.
12   MR. NEUKOM: Thanks all.
13   MR. FERRALL: Agreed. Thank you.
14   (The deposition concluded at 3:31 p.m.)
15   -oo0oo-
16
17
18
19
20
21
22
23
24
25

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1   R E P O R T E R ' S   C E R T I F I C A T E
2
3
4   I, BROOKE R. BOHR, a Notary Public in
5   and for the State of Idaho, do hereby certify:
6   That prior to being examined, the
7   witness named in the foregoing deposition was by
8   me duly sworn to testify the truth, the whole
9   truth, and nothing but the truth;
10   That said deposition was taken down by
11   me in shorthand at the time and place therein
12   named and thereafter reduced into typewriting
13   under my direction, and that the foregoing
14   transcript contains a full, true, and verbatim
15   record of the said deposition.
16   I further certify that I have no
17   interest in the event of the action.
18   WITNESS my hand and seal March 30, 2016.
19
20
21
22
23   <%signature%>
24   Brooke R. Bohr
25   CSR No. 753

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1   V E R I F I C A T I O N
2   I declare under penalty of perjury
3   under the laws that the foregoing is
4   true and correct.
5
6   Executed on _____ , 20___,
7   at _____, _____.
8
9
10
11
12   _____
13   WITNESS SIGNATURE
14
15
16
17
18
19
20
21
22
23
24
25

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